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Upper Dewey Lake

HAINES/SKAGWAY

SPORT FISH MANAGEMENT ¹

By

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fish presence, fish habitat quality, and type, and public use of the subject area were included in the response to a land use application.

Results and Discussion

A total of 21 responses to land use activities were prepared from 1 July through 30 November 1986 (Table 5). Logging activities in the Haines area in 1986 were minimal due to the closure of the Alaska Lumber and Pulp Mill. Logging was limited to small timber sales. However, with the recent sale of the mill, timber related activities can be expected to increase in 1987. Recent native allotment approvals should also increase private timber sales and logging activities in the area.

There was substantial road construction in Haines and Skagway in 1986. Most of this construction had minimal impact on fisheries habitat. Major rerouting of the Haines Highway (project #68800) above mile 24 and reconstruction of the Dyea Road (project #67417) by the Department of Transportation have been proposed. Both projects could adversely impact fish habitat. The Haines Highway project involves extensive wetland areas and numerous anadromous streams. Participation in all stages of planning and development of these projects by ADF&G staff will be necessary to minimize the impacts to the fishery resources.

Recommendations

Protection of fish habitat will become more important in the future as development increases concomitant with population growth. Major highway reconstruction in both Haines and Skagway and the sale of the lumber mill in Haines (and subsequent logging activities) will be the main issues in the near future. Department personnel will strive to be involved with developmental agencies early in the planning process to ensure that fish habitat is adequately protected.

LAKE SURVEYS/ENHANCEMENT POTENTIAL

Methods and Procedures

Herman, Pee Wee (unofficial name), Walker, and Rustabach Lakes in the Haines area, and Lost, Upper Dewey, and Goat Lakes in the Skagway area were surveyed in 1986 to determine the potential for enhancing their sport fisheries.

Lake enhancement surveys in the Haines and Skagway areas in 1986 answered the following questions and concerns: 1) do proposed stocking sites have an adequate year-round water supply, good public access, and suitable physical site characteristics; and 2) can proposed sites be stocked with a minimum of logistical complications.

The following information was collected from each potential enhancement site:

1. lake surface area
2. lake depth
3. bathymetric contour map

4. map of lake, inlets, outlets, spring areas
5. map of access routes to the lake
6. history of previous stocking and angler-use
7. fish present

Information was acquired through a search of regional and area stream files, discussions with local residents, and on-site surveys.

Maps of the individual lakes were taken from U.S. Geological Survey quadrangle maps or aerial photographs (if available). Bathymetric maps were drawn by obtaining a series of depth readings along transects drawn on the lake maps. A 10-foot long inflatable boat with a 4 h.p. outboard motor was used to run the transects. Depth readings were taken with a portable Ross depth finder.

The stocking histories of the lakes were obtained from the files in the area Sport Fish office. The species of fish present in a lake were determined by use of baited fish traps and a variable mesh gillnet set for short periods of time. Fish captured were identified by species, scales were taken from the preferred area, and the fish were then released. Fish killed in the gillnets were retained for age-sex-length data collection.

Results and Discussions

Herman, Pee Wee, Walker, Rustabach, Lost, Upper Dewey, and Goat Lakes were surveyed during 1986. In addition, a cursory survey of Icy Lake in Skagway was conducted by helicopter. It was found to be too small to land a fixed wing aircraft and afforded no landing sites for a helicopter. The stocking histories of the lakes surveyed are presented in Table 6. Stocking records were not located for either Walker or Pee Wee Lakes. Fish sampling data collected from Haines/Skogway area lakes in 1986 are summarized in Table 7. The physical characteristics of the lakes surveyed are presented in Table 8. Water temperature data collected from the surveyed lakes are presented in Table 9.

Herman Lake:

Herman Lake is approximately 4.9 ha (12 a) in surface area and is 941 feet above sea level. The outlet of the lake flows underground through a cavern on the northeast shore of the lake. The cavern restricts flow from the lake and consequently, the level of the lake varies as much as 20 feet in a year. Herman Lake has a large population of small grayling. The inlet to Herman Lake provides an abundance of spawning substrate. The lake is presently accessible accessed via a 1.5-mile long rugged trail leading off the Porcupine Mine road which is passible only by high clearance vehicles. The lake and access route are located on State property.

Pee Wee Lake (unofficial name):

This small lake is approximately 2.4 ha (6 a) and lies just to the west of Herman Lake. The lake is currently accessible by a 0.5-mile long hike (undeveloped trail) from the Herman Lake access road. The shores

Table 6. Stocking history of lakes surveyed in Haines and Skagway, 1986.

Lake	Year	Species	Number	Results
Herman	1972	RT ¹	2,500	not evaluated
	1976	GR ²	16,000	successful
Rustabach	1932	BT ³	1,700	successful
Lost	1956	RT	5,000	successful
Upper Dewey	1920	BT	25,000	successful
Goat	1932	BT	750	unsuccessful
	1936	BT	2,200	unsuccessful

¹ Rainbow trout, (*Salmo gairdneri* Richardson)

² Arctic grayling, (*Thymallus arcticus* Pallas)

³ Brook trout, (*Salvelinus fontinalis* Mitchell)

Table 7. Fish sampling data collected from Haines/Skagway lakes, 1986.

Lake	Gear ¹	Soak Time (min)	Species	Number Captured	Length Range (mm)	Mean Length (mm)
Herman (22 Jul)	MT(10)	180	ND	0	0	ND
	GN	85	GR	17	110-312	181
	SG	0	GR	4	110-312	181
Pee Wee (24 Jul)	MT(5)	120	ND	0	0	ND
	GN	180	ND	0	0	ND
Walker (9 Aug)	MT(10)	365	DV	112	60-188	128
	GN	210	DV	8	138-195	178
Rustabach (28 Aug)	MT(10)	210	CT ²	19	90-198	137
			BT	9	107-142	123
	GN	45	BT	4	113-168	148
			CT	8	169-202	186
Lost (29 Jul)	MT(10)	1,260	RB	1	0	52
	SG	ND	RB	20	89-245	183
Upper Dewey (30 Jul)	MT(5)	1,440	ND	0	0	ND
	SG	ND	BT	20	205-267	231
Goat (2 Aug)	MT(5)	1,440	ND	0	0	ND
	GN	1,440	ND	0	0	ND

- ¹
- MT(x) = x number of baited minnow trap
 - GN = variable mesh gill net
 - SG = rod and reel
 - ND = no data

- ²
- Cutthroat trout, (*Salmo clarki* Richardson)

Table 8. Summary of physical characteristics of lakes surveyed in Haines and Skagway, 1986.

Lake	Date	Surface Area (ha)	Elevation (m)	Depth of Lake (m)	-----Surface-----			-----Midwater-----			-----Bottom-----				
					DO (mg/l)	pH	temp. (°C)	Depth (m)	DO	pH	temp.	Depth (m)	DO	pH	temp.
Herman	07/23	4.9	287	8.2	9	7.5	19.0	4.6	9	7.5	7.0	7.6	1	7.0	5.5
Pee Wee	07/24	2.4	354	9.1	11	7.5	18.0	4.6	7	7.5	9.0	9.2	2	6.5	6.0
Walker	08/09	49.8	359	21.9	11	7.5	15.0	9.2	11	6.8	11.0	18.3	2	6.3	6.5
Rustabach	08/28	3.6	76	1.8	11	8.0	16.0	ND	ND	ND	ND	1.5	10	7.8	16.0
Lost	07/29	1.6	411	13.7	10	7.3	14.5	6.1	6	6.5	7.5	11.6	0	6.5	6.0
Upper Dewey	07/31	12.9	944	19.8 ₁	12	6.8	6.5	9.2	12	6.8	5.5	18.3	12	6.5	5.0
Goat	08/03	82.6	888	76.4	11	6.8	5.0	19.8	12	7.0	5.5	ND	ND	ND	ND

1 Goat Lake is deeper than 76 meters but exceeded the limits of the fathometer.

ND no data

Table 9. Water temperature data collected in Haines and Skagway lakes,
1986.

Depth (m)	Temperature (°C)					
	Herman (07/23)	Pee Wee (07/24)	Walker (08/09)	Rustabach (08/28)	Lost (07/29)	Upper Dewey (07/31)
0	19.0	18.0	15.0	16.0	14.5	6.5
1.5	18.0	17.5	15.0	16.0	14.0	6.5
3.0	11.0	12.5	14.0		14.0	6.0
4.6	7.0	9.0	12.5		8.0	5.5
6.1	5.5	7.5	9.5		7.5	5.5
7.6	5.5	6.5	9.5		7.0	...
9.1		6.0	8.0		7.0	5.5
10.7			...		6.0	...
12.2			8.0		6.0	5.0
15.2			6.5			5.0
18.3			6.5			5.0

¹ Water temperature data on Goat Lake was not completed due to extreme depth and inclement weather.

of the lake are stable and very brushy. No fish were found in Pee Wee Lake. The outlet of Pee Wee Lake flows into Herman Lake, however, there is a barrier on the lake outlet, blocking fish passage upstream from Herman Lake.

Walker Lake:

Walker Lake is a very scenic lake of approximately 49.8 ha (123 surface area) located 1,177 feet above sea level. There is no developed access to the lake. This lake is large enough to be accessible by fixed wing aircraft. The inlet stream provides an abundance of good spawning substrate. Walker Lake contains Dolly Varden which appear to be stunted. The lake and potential access route are located on State property.

Rustabach Lake:

Rustabach Lake is approximately 3.6 ha (9 a) in size and has a maximum depth of 7 feet. The lake has populations of cutthroat trout and Dolly Varden which support some sport fishing pressure. The outlet of the lake provides some spawning habitat. No legal public access is currently available since the lake and access route are located on private property.

Lost Lake:

Lost Lake is approximately 1.6 ha (4 a) in size, has a maximum depth of 38 feet, and lies at the 1,350-foot elevation.

Rainbow trout abundance appears to be stable. The lake is reported to contain a few very large fish, however, no rainbow trout over 260 mm fork length were caught in our survey. The lake is accessible by a steep, rugged trail starting at approximately 10.5 mile on the Dyce Road. The trail to the lake is located partially on private property. There are no good campsites along the shoreline of the lake.

Upper Dewey Lake:

Upper Dewey Lake is approximately 12.9 ha (32 a) in size and lies at the 3,100-foot elevation. Upper Dewey Lake and the access route are located on federal land. The lake is reached by a steep trail from Lower Dewey Lake. The Dewey Lake trail head begins at the Skagway city limits. The lake is also large enough for fixed wing aircraft access. The shoreline of the lake is easily accessible for anglers. Upper Dewey Lake contains brook trout, with fish up to 267 mm in length. A possible explanation for the relatively large size of the brook trout is that freezing of the spawning areas causes low survival of the spawn.

Goat Lake:

Goat Lake is approximately 82.6 ha (204 a) in size and has a maximum depth of over 250 feet. This large scenic alpine lake is located at the 880-foot elevation on National Forest land. There is no developed access to the lake, however, Skagway residents having reportedly hiked

up to the lake starting at about mile 6½ of the White Pass-Yukon railroad tracks. The lake is also large enough for fixed wing aircraft. No fish were caught during survey sampling. This lake is large enough to provide a significant attraction if properly developed.

Recommendations

Herman Lake:

Improving access to Herman Lake would likely provide additional angling pressure which would reduce the grayling abundance and hopefully improve their growth. The Alaska Department of Natural Resources is proposing a logging access road which would provide excellent access to Herman and Pee Wee Lakes. The ADF&G should urge construction of the road, with proper stipulations to protect fish habitat. When the water level of Herman Lake is high, angling is difficult due to brushy shorelines. A small skiff on the lake for public use would improve access to fishing.

Pee Wee Lake:

Further study to determine if this small lake should be stocked and with what species will be done if the proposed logging road is constructed near-by. Resident rainbow or cutthroat trout should probably be stocked. If stocked fish migrate downstream to Herman Lake, they could help reduce the grayling numbers and provide larger fish.

Walker Lake:

Angling opportunity at Walker Lake could be best improved through improving public access. Road work, development of a good trail, and placement of a public cabin and skiff at Walker Lake would allow increased public use of the area. The introduction of a predator species such as rainbow or cutthroat trout may also be desirable, pending improvement of public access.

Rustabach Lake:

Due to the private land status, we do not recommend stocking additional fish or developing public facilities at this time. The land owner has plans to develop access and construct a camp and facilities at the lake for handicapped children.

Lost Lake:

Enhancement of angling opportunity at Lost Lake is not recommended at this time because of the small size of the lake, private land status of the access route, and a lack of alternative access routes.

Upper Dewey Lake:

The population of brook trout at Upper Dewey Lake seems to be doing well and there is little that could be done to enhance it. Perhaps angler

success could be improved and use of the area increased by placement of a "fishing techniques" sign at the trail head.

Goat Lake:

Goat Lake is ideally situated for "fly-in" fishing. The shortest developed trail access from Skagway would be at least 10 miles in length. The lake could be stocked with a cold tolerant species such as grayling, rainbow trout, or lake trout which would do best if a forage fish species were also planted. Enhancement activity should also include placement of spawning substrate in the lake inlet. Good spawning gravel would be available at a glacial moraine at the south end of the lake. Placement of a shelter or cabin and a skiff would promote angler use of the lake.

LITERATURE CITED

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